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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/612,969	03/04/96	NUSSER	D 1231-12

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MM11/1223

EXAMINER

NGUYEN, A

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 12/23/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/612,969

Applicant(s)
Dennis W. Nusser

Examiner
Anthony Nguyen

Group Art Unit
2854



☒ Responsive to communication(s) filed on Dec 7, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-19, 21-25, 27, and 28 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-19, 21-25, 27, and 28 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892 ✓

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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While applicant request for a CPA did not specifically request entry of the amendment after Final Rejection filed October 3, 1997, it appears that this was applicant's intention in view of applicant's statement that 26 claims have been presented. Accordingly, this amendment has been entered. If applicant disagrees with this he should so state on the record.

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24 and 28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, there is no specific disclosure of the keyboard including the individual keys which are arranged in a "DVORAK" layout, nor is any such layout illustrated. Note also that no "Qwerty" keyboard is fully illustrated as is required by the presence of claim 24. See 37 CFR 1.83 (a) first sentence. All claimed subject matter must be illustrated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 1-19, 21-25, 27 and 28 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wang in view of each of the patents to Herzog et al. and Klauber.

Wang teaches an input apparatus having substantially the structure as claimed except the keyboard utilizes a membrane for key layout. Note for example, in Figs. 1 and 4a-4g, Wang teaches a keyboard having a plurality of keys which generate input signals including a plurality of numerals and letters. The keys such as Shift, Control and Alter have a minimum center-to-center horizontal spacing in the range of 12-19 mm and a vertical spacing of 18-21 mm, and the spacing is obviously smaller for the alphanumeric keys. Note, that the widths and depths of the keys of a standard keyboard is about 12 mm which is also in the range as claimed. Both Herzog et al. and Klauber teach an input apparatus including a plurality of conventional keys for generating signals which are in English with Arabic numerals. In view of these teachings of Herzog et al. and Klauber, it would have been obvious to one of ordinary skill in the art to modify the keyboard of Wang by incorporating the keyboard teachings of Herzog et al. and Klauber for improve typing feel. With respect to claims 1, 21, 22, 23 and 27, the selection of a desired keystroke travel range involves only an obvious matter of choice based upon obvious experimentation. This obviousness is evidenced by the fact that applicant recognizes that the conventional keystroke travel range is about 1.5 -6 mm (the specification, page 10 lines 20-24). With respect to claims 6, 14, 18, 23 and 25, the functions to be used in the input apparatus as recited are well known in the art as exemplified by Wang and Herzog et al. With respect to claim 24, the keyboard including keys which are arranged in a "QWERTY" layout is obvious in view of Wang, Herzog et al. and

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Klauber. See Fig.1 (each patent). With respect to claim 28, it would be obvious to use any known keyboard layout.

Applicants' arguments filed on October 3, 1997 have been fully considered but they are not persuasive of any error. Applicant argues that the "DVORAK" and "QWERTY" keyboard layouts are well known in the art. However, as indicated above, the keyboard layouts as recited in claims 24 and 28 are not illustrated as required by 37 CFR (a) first sentence. applicant argues that Wang, Herzog et al., and Klauber fail to teach the fixed key input apparatus as claimed. However, as discussed above, Wang teaches a keyboard including keys which generate input signals of numerals and letters. The keys have a minimum center-to-center horizontal spacing and vertical spacing in the range as claimed. The recited horizontal spacing and vertical spacing are also rendered obvious with respect to the horizontal spacing and vertical spacing of a conventional keyboard. Herzog et al. and Klauber are cited to show a conventional keyboard in which signals are generated in English and Arabic numerals. Also, the keyboards of Herzog et al. and Klauber can be touch typing. Thus, it is believed that the rejections are proper. There is no apparent unobviousness in the structure claimed relative to the structure of the prior art as applied.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (703) 308-2869 . The examiner can normally be reached daily from 9 AM to 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edgar Burr, can be reached on (703) 308-0979. The fax phone number for this Group is (703) 308-2864.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956 and 305-4900.



Edgar Burr
Supervisory Patent Examiner
Technology Center 2800



AH N
December 21, 1998